## Supplementary material related to

"Hepatoma-Derived Growth Factor-Related Protein 2 Promotes DNA Repair by Homologous Recombination"

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- -Legends to Supplementary Figures S1 and S2
- -Supplementary Figures S1 and S2

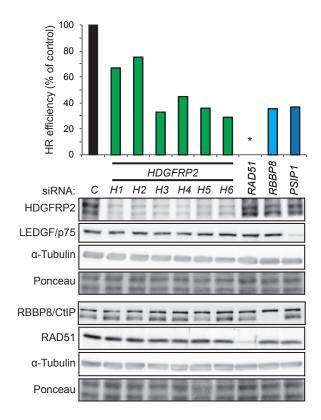
## Supplementary Figure S1. Knockdown of HDGFRP2, RBBP8/CtIP and LEDGF inhibits DNA DSB repair by homologous recombination.

U2OS DR-GFP cells were transfected with control (C), HDGFRP2 (H1 – H6), RAD51, RBBP8 or PSIP1 siRNAs for 48 h, followed by transfection with I Sce-I and RFP (internal control) for 24 h. The efficiency of homologous recombination was determined by the GFP/RFP ratio analysed by flow cytometry. Representative immunoblots of indicated proteins from the lysates of the same cells are shown below. Sequences of the not previously presented siRNAs were GAAGAUUCGCCGUUACAA (H1),CGACAAAUGUAAAGACAA (H2) and CAGUGACGCUGACGAGGAC (H6) (Sigma). RAD51 siRNA was s11734 from Ambion and anti-RAD51 antibody from Santa Cruz (sc-8349).

\*Note that data from the RAD51-depleted cells is not shown in the histogram.

## Supplementary Figure S2. HDGFRP2 co-localizes with H3K9me3

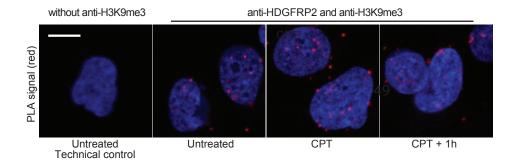
Co-localization of HDGFRP2 and H3K9me3 was analysed using goat anti-HDGFRP2 (1:200) and rabbit anti-H3K9me3 (1:1000) antibodies and Duolink-based *in situ* proximity ligation assay (PLA) in U2OS cells left untreated or treated with 1  $\mu$ M camptothecin (CPT) for 1 h with or without 1 h recovery. Representative confocal images, in which co-localization of the studied proteins results in red (624 nm) PLA-specific fluorescence are shown. Lack of PLA signal in the absence of H3K9me3 primary antibody is shown as a negative control. Scale bar, 10  $\mu$ m. \*\*\* p < 0.001. The quantification of the data is shown in Fig. 4f.



**Supplementary Figure S1.** Knockdown of HDGFRP2, RBBP8/CtIP and LEDGF inhibits DNA DSB repair by homologous recombination.

U2OS DR-GFP cells were transfected with control (C), HDGFRP2 (H1 – H6), RAD51, RBBP8 or PSIP1 siRNAs for 48 h, followed by transfection with I Sce-I and RFP (internal control) for 24 h. The efficiency of homologous recombination was determined by the GFP/RFP ratio analysed by flow cytometry. Representative immunoblots of indicated proteins from the lysates of the same cells are shown below. Sequences of the not previously presented siRNAs were GAAGAUUCGCCGUUACAAA (H1), CGACAAAUGUAAAGACAAG (H2) and CAGUGACGCUGACGAGGAC (H5) (Sigma). RAD51 siRNA was s11734 from Ambion and anti-RAD51 antibody from Santa Cruz (sc-8349).

\*RAD51-depleted cells were not tested in the HR assay.



## **Supplementary Figure S2.** HDGFRP2 co-localizes with H3K9me3

Co-localization of HDGFRP2 and H3K9me3 was analysed using goat anti-HDGFRP2 (1:200) and rabbit anti-H3K9me3 (1:1000) antibodies and Duolink-based in situ proximity ligation assay (PLA) in U2OS cells left untreated or treated with 1  $\mu$ M camptothecin (CPT) for 1 h with or without 1 h recovery. Representative confocal images, in which co-localization of the studied proteins results in red (624 nm) PLA-specific fluorescence are shown. Lack of PLA signal in the absence of H3K9me3 primary antibody is shown as a negative control. Scale bar, 10  $\mu$ m. \*\*\* p < 0.001.

The quantification of the data is shown in Fig. 4f.